

REMARKS

The Applicants thank the Examiner for the careful examination of this application and respectfully request the entry of the amendments indicated hereinabove.

Claims 1-20 are pending and rejected. Claims 1, 4 and 5 are amended hereinabove.

The Applicants respectfully traverse the rejection of Claim 3 under 35 U.S.C. 112, second paragraph. The Applicants submit that the time depends on how long it takes to reach a desired concentration of solution (described in the Specification at the middle of page 3 and bottom of page 8). Therefore, Claim 3 properly states how the length of "prescribed time" is calculated. The Applicants note that the amendments to Claims 4 and 5 are supported in the Specification at the middle of page 3.

Amended Claim 1 positively recites feeding ultrasonic waves into the cleaning solution after the passage of a prescribed period of time since the time that the semiconductor wafers are dipped in the cleaning solution. Claim 1 also positively recites that the prescribed period of time is more than 5 seconds. These advantageously claimed features are not taught or suggested by the patents granted to Guldi, Nagahara et al., or Wong et al., either alone or in combination.

Guldi does not teach waiting a prescribed period of time of at least 5 seconds to feed ultrasonic waves, as advantageously claimed. Rather, Guldi teaches the immediate introduction of the physical cleaning action (column 8 lines 34-37. Therefore, Claim 1 is patentable over Guldi. (The Applicants are confused by the page 4 Office Action reference to Guldi's claims in column 10 of the Guldi patent. Such a reference is counter to normal prosecution procedures.)

Nagahara et al. teaches away from the advantageously claimed invention because Nagahara et al. teaches the cleaning of liquid crystal displays (column 3 lines 57-61). The term "substrate" in the Nagahara et al. patent refers to an array substrate (column 1 lines 36-45); not the semiconductor wafers of the advantageously claimed invention. Therefore, Claim 1 is patentable over Nagahara et al. In addition, it is nonsensical to combine the teachings of Nagahara et al. (concerning liquid crystal displays) with Guldi (semiconductor wafers) and/or Wong et al. (semiconductor wafers).

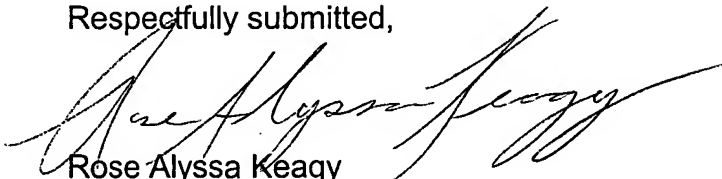
Wong et al. teaches away from the advantageously claimed invention by teaching a wafer cleaning method that does not include feeding ultrasonic waves (column 10 line 57 to column 11 line 28), as advantageously claimed. The Applicants respectfully traverse the assertion in the Office Action (page 6) that Wong et al. teaches the use of "applying sonic energy." The Applicants submit that Wong et al. describes a cleaning process not taught by his invention (called the "standard process") in column 21 lines 9-14 and states that his process is different and better than the "standard process" that uses megasonic energy (column 21 lines 1-17). Therefore, Claim 1 is patentable over Nagahara et al.

Furthermore, there is no teaching to combine a cleaning method that does not use ultrasonic waves (Wong et al.) with a cleaning method that may use ultrasonic transduction (Guldi).

Therefore, the Applicants respectfully traverse the Examiner's rejection of Claim 1 and respectfully assert that Claim 1 is patentable over Guldi, Nagahara et al., or Wong et al., either alone or in combination. Furthermore, Claims 2-20 are allowable for depending on allowable independent Claim 1 and, in combination, including limitations not taught or described in the references of record.

For the reasons stated above, this application is believed to be in condition for allowance. Reexamination and reconsideration is requested.

Respectfully submitted,



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